DOCUMENT RESUME

ED 388 844 CE 070 240

AUTHOR Pardey, D.
TITLE Post-16 Participation: The Success Story. Mendip Papers MP 043.
INSTITUTION Staff Coll., Bristol (England).
PUB DATE 92
NOTE 42p.
AVAILABLE FROM Staff College, Coombe Lodge, Blagdon, Bristol BS18 6RG, England, United Kingdom (5 British pounds).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Economics; *Educational Policy; *Employment Level; *Enrollment Rate; Foreign Countries; Participation; Postsecondary Education; Public Policy; *Technical Institutes; Young Adults
IDENTIFIERS *United Kingdom

ABSTRACT

An analysis was done regarding the perceived low numbers of British students who stay on in school past age 16. This three-part paper summarizes that study. Part 1, "Post-Compulsory Education Analysing the Market," presents a summary of the problem of low participation in post-16 schooling, based on a survey of literature and interviews with technical college managers and officers. It includes information about the economic significance of continuing education and training and the emerging consensus that both are vital to the economic well-being of the United Kingdom. In Part 2, "Post-compulsory-education: identifying the trends," the paper offers an alternative analysis of much of the data. It suggests that the quantitative gap between the United Kingdom and its major economic competitors is narrowing at such a rate that means this part of the argument for further education is becoming irrelevant. The number of young people continuing in education and training, within the public sector, is fast approaching the rates common elsewhere. This section also brings up the question of the quality of the training. Part 3, "The Challenge for Colleges," suggests policy for the future. It maintains that the reasons that participation rates have increased are manifold, but the role of post-16 institutions is central. These institutions have spent the last few years improving their marketing and changing the attitudes and behaviors of many thousands of young people. The effectiveness of these strategies are at the root of the social changes that are evidenced by the increasing participation rates. For the future, the paper maintains, the growth and cooperation of these institutions will determine how many young people are prepared for the future. The report includes 17 figures. Contains 33 references. (KC)

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Post-16 participation: the success story

D Pardey

MP 043

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Post-16 participation: the success story

D Pardey

The Staff College

MP 043

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Series edited and designed at The Staff College by Pippa Toogood and Susan Leather, Publications Department, and produced by the Reprographics Department.

Published by The Staff College,
Coombe Lodge, Blagdon, Bristol BS18 6RG
Telephone (0761) 462503
Fax (0761) 463104 or 463140 (Publications Department)

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Mendip Papers

Post-16 participation: the success story

D Pardey

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INTRODUCTION

During 1987 I was running a Responsive College Project in Suffolk, funded through the Manpower Services Commission (MSC) NAFE Central Reserve. For a year the Project supported the development of the Work Related Non-Advanced Further Education (WRNAFE) planning process in the county, with specific emphasis on the way in which four FE colleges were meeting the individual and collective needs of the market.

One exercise I undertook was an attempt to determine the degree of market penetration the FE colleges had achieved. This seemed the obvious starting point for any organisation in assessing its success (or failure) in the market. Two simple questions needed to be asked:

- How big is the market? and
- What share do we possess?

During the several years I worked in the consumer durables industry this had been a natural basis for assessing one's own and other companies' market performance. For that reason, I sought to apply the same logic to FE. The colleges operated in several different markets and these could be defined in various ways; by age, gender, geography, employment status, industry of employment, occupation, etc. This market segmentation was a necessary precondition for analysing market penetration and it revealed some striking insights into MSC, local education authority (LEA) and college managers' different perceptions of the market and marketing success. One obvious market segment to consider was post-compulsory school leavers due to their importance to colleges in terms of the volume of activity generated by their recruitment. There was also the growing awareness that their total numbers, having peaked in the early '80s, were going to drop considerably during the early '90s. (That this fact had been apparent since the mid-'70s, when the birth rate started to decline says a lot about the degree of long-term planning which occurs in education.)

The level of post-compulsory participation (staying on rates at 16 plus) in the UK has received a lot of attention recently, but in Suffolk at this time it was even more of a live issue. The county had one of the lowest levels of post-compulsory participation in England and had already established a working party to consider what caused this and what could be done. When I reviewed some of the data then available I came across a particular school in a fairly isolated, rural part of the county which had the lowest post-compulsory participation rates of all the LEA's schools. It was an 11-16 institution, feeding into either the sixth form of an 11-18 school or to an FE college several miles away and drawing its pupils from a wide, sparsely populated hinterland. Someone commented at the time that as this school had the lowest staying-on rate in Suffolk it must make it contender for the title of the school with the lowest staying-on rate in all the countries of western Europe – hardly a strong recommendation in the new market-oriented world of education in the 1990s!

Why is this? What is at the root of the problem of low participation post-16 (if it is a problem) and what can be done about it? Over the last few years I have collected evidence, read countless articles and talked to very many college managers and LEA officers about the problem. Many of the arguments have been well rehearsed, and in Part 1 of this paper there is a brief summary of them and the economic significance of continuing education and training. In particular, the emerging consensus that education and training post-16 is vital to the economic well-being of the UK is one positive outcome of the debate.

In Part 2 I offer an alternative analysis of much of the data which is already familiar to those who have followed the debate with any degree of interest. The conclusion I offer is far more optimistic than that available elsewhere. I suggest that the quantitative gap between the UK and its major economic competitors is narrowing at such a rate that means this part of the argument is becoming irrelevant. The number of young people continuing in education and training, within the public sector, is fast approaching the rates common elsewhere.

The issue of the qualitative gap is much more sensitive; are we encouraging young people to participate but then failing them in the process? This is a far less clear-cut case than the quantitative issue, and the conclusions offered here are more tentative.

Finally, in Part 3, a prescription for the future. Unlike so many similar documents I do not advocate wholesale change in the structure of education

provision to end the academic/vocational device, nor do I argue for renewed government intervention in the training system to require employers to invest in training. My reasons are twofold:

1. it has been done before, so many times, that it has become a cliche; and
2. government will take no notice because it cuts across its policy goals, which have been reinforced by the recent election.

The answer lies at micro not macro level. The reasons that participation rates have increased are manifold, but the role of post-16 institutions (school sixth forms, sixth form colleges and FE colleges) is central. They have spent the last few years improving their marketing act and changing the attitudes and behaviours of many thousands of young people. The effectiveness of these strategies underpins the social changes which are evidenced by the increasing participation rates.

In the new environment brought about by the **Further and Higher Education Act**, there is a danger that a divide will grow between institutions competing for those 16 and 17 year olds who want to continue in full-time education. Yet at current growth rates, the real problem is accommodating them. In a market where customers are limited in their choice of suppliers, the opportunity for those suppliers to collaborate and minimize wasteful competition exists. When that market still has room for further penetration, despite shrinking in total, this strategy has great potential. The government has encouraged the growth of a market-centred philosophy in education, and schools and colleges have responded enthusiastically. Now is the time to move up the learning curve and discover what the private sector has known for years, that cartels are far more lucrative than the battleground of the really free market. If those cartels can be designed to operate to the benefit of the market (a big if), it is possible for all participants to be winners.

PART 1: POST-COMPULSORY EDUCATION: ANALYSING THE MARKET

Any consideration of post-compulsory education participation (that is, participation in education and training by 16 and 17 year olds) as a market penetration phenomenon (which this paper does) involves a definition of the market, the nature of participation and the factors determining participation. Market penetration is used here to mean the proportion of the total market (in this case 16 year olds and 17 year olds) who are 'consumers of the product' (i.e. participate in some form of pubic sector education and training). Part 2 of this paper looks in detail at the numbers participating, and identifies possible trends; this part is concerned with why they participate (or don't) and what effects this has.

The economics of education participation

There has been considerable interest in the pattern of 16 plus participation for several decades, but it was during the 1980s that the debate intensified as policy-makers reacted to two separate but related phenomena.

The first of these was the incidence of high youth unemployment in the early '80s, when the recessionary period 1981-83 was coupled with the high point in the number of school-leavers entering the labour market. The consequence of these two events – a trough in economic activity and a peak in new labour market entrants – led to fears of social instability, particularly in inner city areas. It was in these circumstances that initiatives to combat youth unemployment were coupled with policies to address a more systemic problem, the relative decline and international uncompetitiveness of the UK economy. This latter problem was not new; from the high point of British industrial expansion, in the mid-19th century, there has been concern about the relatively faster growth of other economies. Hill (1977) describes the period in the 1870s and 1880s as "the end of an era ... For the age of British economic supremacy was over. Henceforth Great Britain was to be challenged ..... in the markets of the world ... most notably by the United States and by Germany".

Hobsbawn (1968) comments that the "transformation of the leading and most dynamic industrial economy into the most sluggish and conservative in the short space of 30 or 40 years (1860-90/1900), is the crucial question of British economic history". He also provides some indication of the possible answer to this 'crucial question' by remarking that "the major technical advances of the second half of the 19th century were therefore essentially scientific; that is to say they required ....

an increasingly close and continuous link between industrialists, technologists and professional scientists and scientific institutions".

This link between economic performance, education and educational institutions was reflected in the gradual development of public education during this period.

The inspiration for the Balfour Act in 1902 (which created the LEAs and allowed rate-support for elementary and secondary schools) was "the belief that England (sic) must undertake further educational reform in order to keep pace with Germany and other countries which in their view were outstripping her in industry and science because their people were better educated" (Hill, 1977). That such concerns were being voiced in 1902 may surprise some people; what is alarming is to hear similar comments today:

> "At a national level the contribution of education and training is equally striking and the success of two of the world's leading economies – Japan and Germany – is to a large part contributable to their skills base." (CBI, 1991)
>
> "... Britain is faced with an unprecedented challenge to its international competitiveness. Our future economic growth and well being depend upon our ability to overcome it .... But the next decade will need to see an even greater emphasis throughout our economy, on the acquisition of the skills that are required to meet and beat the standards of the best in the world." (Employment Department, 1990)
>
> "[Germany, the US and Japan] see a clear link between investment in education and training and competitive success" (National Economic Development Council, 1984)
>
> "... Britain now trains more people for longer .... but we have fallen behind our competitors comparatively because they have done so much more than us. We are failing to meet the needs of a late 20th century economy..." (Trades Union Congress, 1989)
>
> "The factors most often singled out to explain the United Kingdom's inferior productivity are the level, structure, composition and technical quality of investment in both physical and human capital ....
>
> "In Japan, the high levels of labour performance can be ascribed to a well educated and well trained workforce capable of undertaking a wide range of tasks.
>
> "In Germany, much of the performance of the workforce can be ascribed to the superior level of vocational skills." (Eltis *et al*, 1992)

Whilst the common element in any country's list of competitors has always been Germany, the USA has given way to Japan in importance and now other pacific rim and northern European states are cited as examples of good performance (Korea, Taiwan, Singapore, France, the Netherlands, etc.). What all these comments have in common, however, is a rhetorical emphasis on the link between economic performance on the one hand, and education and training on the other.

Education and training (either its quality – the level of attainment; or its quantity – the length of participation, particularly post-16) is seen as a major contributory factor, yet how it determines economic performance is rarely explored. It may seem self-evident, yet the enormous variety of education and training provision in other countries does not easily demonstrate a causal effect. For example, imagine a country in which, because of their fear that it will fail to deliver an adequate level of performance, parents pay for additional tutoring to supplement public provision (in which large classes and an emphasis on rote learning exists), where academic and vocational systems split at 15 and provide very little opportunity for transfer, and where vocational education is very much an inferior and minority sector. This is Japan.

Alternatively, imagine a country where little more than half the young people stay on full-time post-16, where only a third continue in part-time vocational education, where a cross-over from vocational to academic streams is almost impossible, and where the vocational curriculum is dominated by employer interests. This is (the former West) Germany.

It is quite possible to present both systems (as systems) in a fairly unflattering light, and to find that the one common feature is the rigidity of the

division between academic and vocational streams. Yet both models are hailed as offering at least part of the explanation of the comparative economic success of both countries, and possible models for the UK.

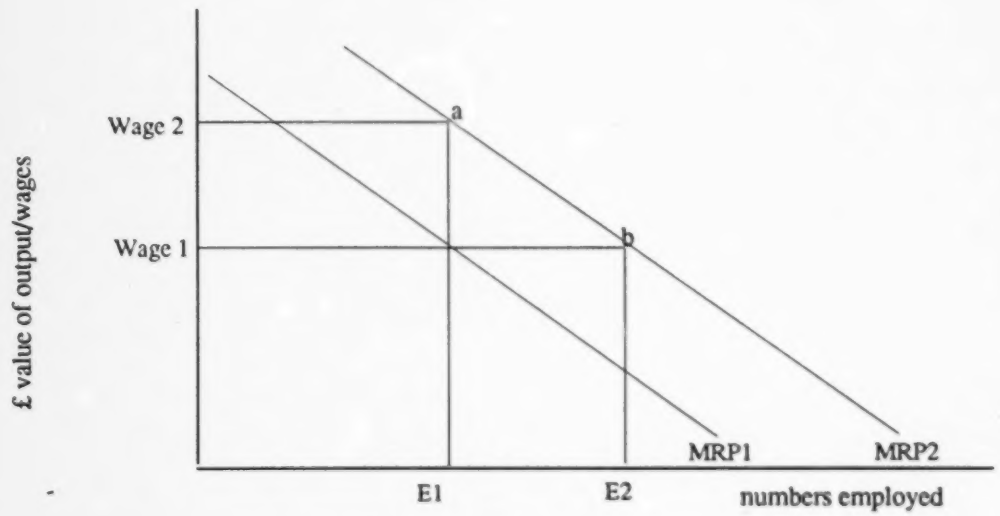
Government policy and the economic environment

The economic philosophies which shape government policies must first be understood if such policies are to withstand rational comparison with other countries'. In the UK the dominant paradigm now is the free market; individual behaviour, directed by rational market analysis and personal self-interest leads to social optimisation. It is the combined individual benefit which generates overall social benefit.

The essence of this analysis is the importance of financial cost/benefit analysis (the human capital approach); the individual assesses the cost of education and training and the lifetime returns s/he might expect from such an investment. Where the returns exceed the outlays over a period of time, the financial incentive is to invest; where skills are short and demand is high these returns will be far in excess of costs. As the supply of skilled labour increases the market equilibrium reduces real wages (returns) to a level such that there is no surplus over costs, and thus discourages further participation. Governments and employers can alter the market behaviour by reducing costs (through subsidies) and thus altering the equilibrium and increase participation, although this distortion of the free market is seen as counter productive in the long-run by some free market theorists (see **Figure 1**).

An alternative approach is exemplified by both West Germany and Japan, although present to varying degrees in much of western Europe. This structuralistic/corporatist analysis relies upon a consensus of interest emerging amongst government,

Figure 1: Productivity, wages and employment



MPR1 Marginal Revenue Product: the value of output from employing each additional unit of labour.

MRP2 An increase in labour productivity.

Wage 1 Initial equilibrium wage, at which E1 units of labour are employed.

Wage 2 The higher equilibrium wage paid to E1 units of labour, with no increase employment (i.e. extra labour impossible to find – perfectly inelastic supply).

The new equilibrium point on curve MRP2 will lie somewhere between points a and b depending on how easily the more highly skilled labour is to find.

employers and employees (the social partners). It can be reinforced as in West Germany by a statutory framework, or rely on powerful social and cultural mores to conform, as in Japan.

In Germany the power of Chambers of Commerce to induce employers to participate in education and training, due to their statutory authority, re-inforces well-established mechanisms for ensuring almost all young people participate in education or training up to 18 and beyond. A further social sanction, of a positive kind, lies in the social status afforded to the craftsperson, particularly to the 'meister'.

In Japan the managed economy, which harmonises large companies' policies through MITI, encourages a longer-term perspective to be adopted. The powerful links between large companies and their suppliers, and the strong local associations formed by small firms enable centralist policies to be enforced away from the centre.

In both countries a financial system is in place to encourage a more strategic overview through its long-term perspective, unlike the 'short termism', characteristic of the UK financial system, which does not easily tolerate the low-profit strategy required in lean years to ensure an effective labour supply in fat years. The structuralist/corporatist approach appears to solve a major difficulty often identified with education and training; its 'public good' nature. The benefits of education and training accrue to the individual and to the whole economy not just to the firm who may be sponsoring it. Thus 'free-riders' (those who employ but do not train skilled labour) are subsidised by those who do train. The corporatist/structuralist solution is to make everybody pay either through an obligation to train or through taxation. The Industrial Training Boards represented the UK's structuralist/corporatist solution to the public good dimension. Their dismantling reflects the free market human capital paradigm's dominance and the replacement of the financial 'carrot and stick' incentive to train with an effort to free up the market for education and training and to change attitudes towards it.

Skills availability, labour markets and productivity

Economic explanations of the link between education and training on one hand and economic performance on the other hand have tended to be either of the generalised observational kind about macro-economic behaviour cited above or to focus on the micro-economic behaviour of the firm and individual employees, aggregated up to explain relative wage levels in terms of skills shortages and surpluses.

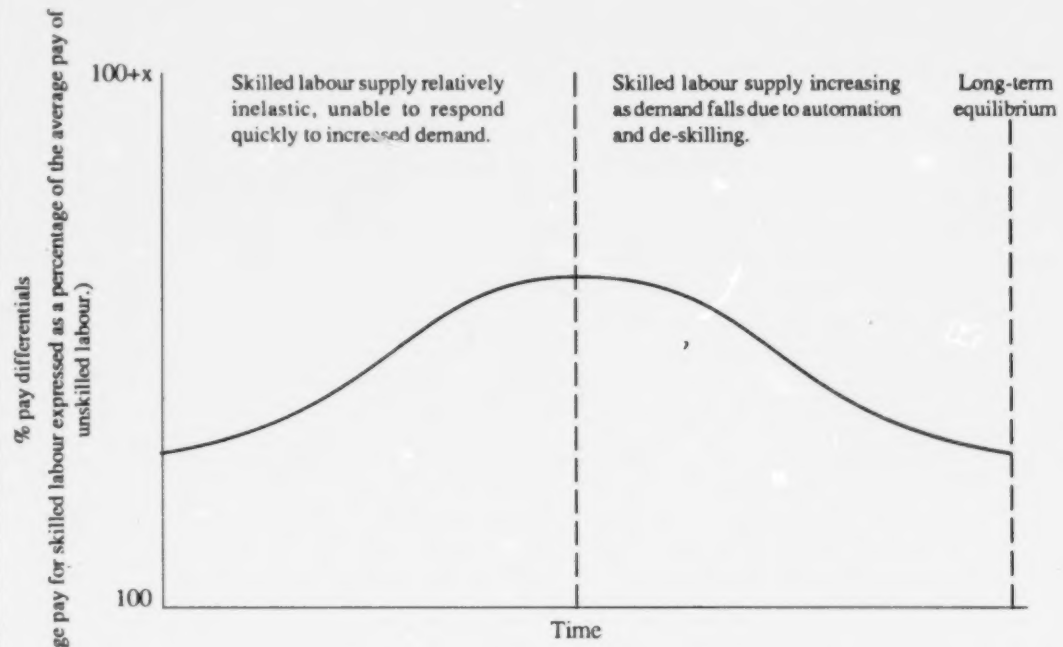
For example Sapsford (1981) describes the long run narrowing of pay differentials between skilled and unskilled workers, which occurred between World Wars I and II as being the interaction of the supply of skilled labour (with inevitable time-lags due to the relative inelasticity of supply while training occurs) and the demand, affected by the de-skilling arising from automation and technical progress. This view, that fluctuations in pay differentials occur through the development of new technology (requiring new skills, pushing up wages and stimulating the demand for education and training) followed by relative wage declines (as jobs are simplified and a supply of adequately skilled labour comes on stream) is a reflection of the dominant paradigm of economic analysis in the UK, the effect of market forces (the inter-relationships between supply and demand) producing long-term equilibrium. This is illustrated in **Figure 2**.

An added complication in this model is the effect of cyclical economic performance. It is an accepted fact that the economy fluctuates in line with certain cycles, although the duration, cause and pattern of such cycles is still unclear. There are three such cycles normally cited, the shorter four to five year cycle, the longer nine to 10 year cycle and the even longer (and more disputed) Kondratieff, 50 year cycle. (It is worth noting that 1992 marks the approximate coincidence of the trough of all three cycles.) Cyclical variations in economic activity affect the demand side of the labour market equation and thus depress or exacerbate wage levels as employers lay off or fight for available skilled labour.

Such cyclical patterns will have an indirect impact on the supply of skilled labour, as they affect wage levels and expected wage levels thus encouraging or discouraging participation in education and training as individuals assess the longer-term returns to their personal investment in participation, both through direct costs and the opportunity costs of deferred income and lost leisure time.

Unfortunately, this model is not wholly consistent with the real world, where a demand for well educated and trained labour has increased (partly as

Figure 2: Long-term equilibrium in the labour market


% pay differentials
(Average pay for skilled labour expressed as a percentage of the average pay of unskilled labour.)
100+x
100
Skilled labour supply relatively inelastic, unable to respond quickly to increased demand.
Skilled labour supply increasing as demand falls due to automation and de-skilling.
Long-term equilibrium
Time

Source: Sapsford, 1981, **Labour market economics**

the switch from manual to non-manual occupations has placed greater emphasis on the cognitive and effective domain, at the expense of the psycho-motor). If Japan and Germany have prospered at the expense of the UK, through their investment in education and training, it cannot be that de-skilling as a result of automation is a significant factor at a macro level.

One other element in this economic riddle which should be considered is, of course, the effect of skilled labour on productivity. Productivity is the measure of output of an individual factor of production (unit of labour, machine, etc.), a unit of production (factory, office, organisation), an industrial sector (automobile manufacturing, eduction, etc.) or a whole economy, relative to the inputs. Shingo (1986) argues that the relative importance of labour and capital is often misunderstood. Labour is, in the long-term, more expensive, requiring 'maintenance' through training and support, but is far more important than capital in determining overall productivity and consequential economic success. It makes most economic sense to have excess capacity of equipment if labour can be use most efficiently. This, he suggest is the source of Japanese success, and reflects their underlying attitude of management to labour, in contrast to the European and North American approach.

At the factor of production level, productivity can most readily be explained by the average and marginal physical product (how much is produced

per factor or by an additional factor) and by the average and marginal revenue product (the value of that production). The latter, the marginal revenue product is used by economists to explain how returns to the factor of production (wages for labour, interest and profits for capital, etc.) are determined.

In this analysis, an employer will pay more to an individual factor of production if the net value of the output it generates equals or exceeds the wage. (Thus if one part-time lecturer at £15 per hour can generate net income – funding plus fees less overheads and direct costs – in excess of £15 per hour, the employment of that person is economically justified. The surplus is the risk reward to the employer.) Clearly, if better educated or trained employees can produce more, or produce more highly valued output (or both), their employment is justified.

It is this explanation which appears to explain the German and Japan performance.

> "Whilst most major nations can boast of some companies of international standing, there are certain highly traded sectors (electronics and automotive in the case of Japan, automotive and chemical in the case of Germany) where virtually all companies are amongst the world's leaders. These companies moreover continue to be competitive despite relatively high domestic labour costs and an appreciating currency. Their robust underlying competitiveness is based upon the more effective use of people; the achievement of more consistent and superior quality; and constant innovation."
> Eltis *et al* (1992)

But if it makes economic sense for companies to invest in education and training, or to reward educated and trained people more highly due to their higher productivity, thus encouraging participation, market forces would have ensured that the UK matched these countries, at least after the 90 years since the Balfour Act. If this hadn't happened the explanation may lie in the way that employing organisations behave, and therefore, how they are managed. Cassels (1990) in **Britain's real skill shortage** suggests that the answer lies here:

> "Whether it [a British company] succeeds or fails depends therefore on whether its workforce is able to perform as well or better than the workforces of the foreign companies against which it is competing. And the term 'workforce' of course comprises a company's top management no less than its production workers .... What we find is that our managers are much less highly qualified than those of competitor countries."
> Cassels (1990)

Cassels then goes on to site Handy, *et al* (1988) who compared the number of graduates in top management in the USA and Japan (85 per cent), France (65 per cent), Germany (62 per cent) and the UK (24 per cent).

Constable and McCormick (1987) also emphasise the importance of management in determining economic performance: "There is widespread recognition that effective management is a key factor in economic growth. Britain's managers lack the development, education and training opportunities of their competitors." So the problem might lie with management; relatively untrained and unskilled managers are not willing or able to make the decisions which will enable the UK economy to compete internationally. The investment in education and training may well have to start here, if we are to break this cycle of relatively poor economic performance and low levels of education and training.

The low skills equilibrium

But can the cycle be broken this way? Finegold and Soskice (1988) suggest that the link between education and training and economic performance depends upon a closer examination of the interaction between labour and other factors of production, and may well be a far more localised phenomenon than previously recognised. This is expressed in terms of a 'low skills equilibrium'.

> "The best way to visualise this argument is to see Britain as trapped in a low-skills equilibrium, in which the majority of enterprises staffed by poorly trained managers and workers produce low-quality goods and services. The term 'equilibrium' is used to connote a self-reinforcing network of societal and state institutions which interact to stifle the demand for improvement in skill levels.
>
> "This set of political-economic institutions

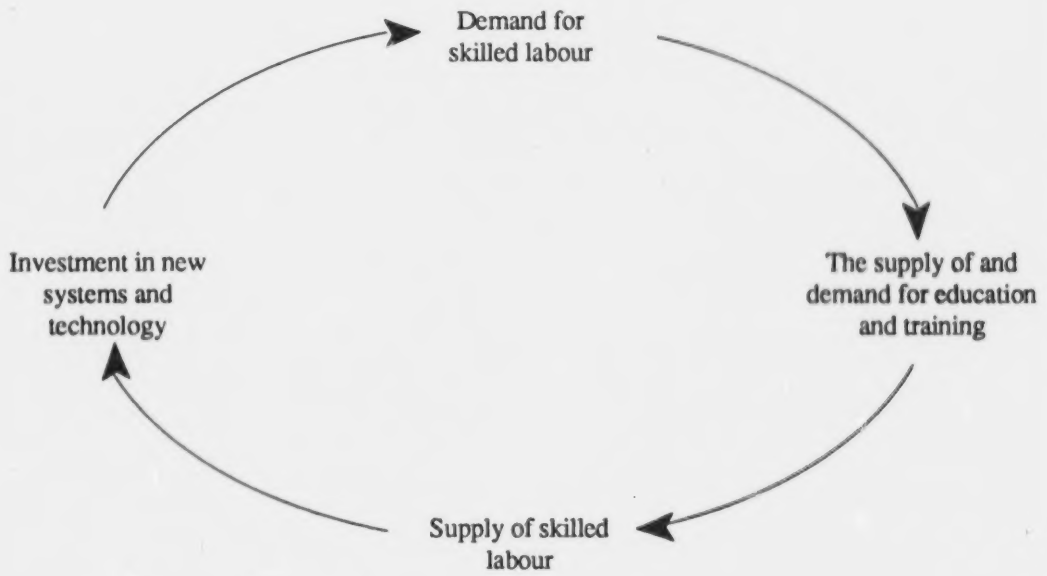
will be shown to include: the organisation of industry, firms and the work process, the industrial relations system, financial markets, the state and political structure, as well as the operation of the [education and training] system. A change in any one of these factors without corresponding shifts in the other institutional variable may result in only small long-term shifts in the equilibrium position. For example, a company which decides to recruit better-educated workers and then invest more funds in training them will not realise the full potential of that investment if it does not make parallel changes in style and quality of management, work design, promotion structures and the way it implements new technologies. The same logic applies on a national scale to a state which invests in improving its ET system, while ignoring the surrounding industrial structure."
Finegold and Soskice (1988)

The low skills equilibrium can be illustrated, in a very simplified way, by linking together two separate but inter-related elements, the market for education and training and the investment in technology (see **Figure 3**).

In this model, the decision to invest in technology will stimulate the demand for skilled labour, which in turn will stimulate demand for education and training. As the education and training market responds it increases the supply of skilled labour and thus enables the investment in technology to occur. But of course, without that supply the investment would have not occurred in the first place thus (all other determinate of investment being equal, such as interest rates, predicted demand, etc.) the decision to make the initial investment is a function of the supply of skilled labour and through that, the current equilibrium level of activity in the education and training market.

The inter-dependence of those elements (investment in technology and education and training participation) is intermediated by the supply of and

Figure 3: The skills equilibrium


Demand for skilled labour
The supply of and demand for education and training
Supply of skilled labour
Investment in new systems and technology

demand for skilled labour, producing the overall skills equilibrium. The level at which they are in equilibrium will vary from economy to economy and labour market to labour market. As David Soskice described it in 1989, at a TVEI conference in London organised by The Staff College for the southern region of the TVEI unit of the MSC, Britain attracts investment from Japan because its equilibrium level places it above countries like Spain, where there is an insufficient supply of adequate skilled labour, but below West Germany, where the level of technological investment equates to Japan and does not match the Japanese requirement for product assembly rather than component manufacture. (It should be noted that Spain has the fastest growing economy in Europe and Catalonia now has a higher per capita income than the UK. How much longer this comparisons remains valid is therefore questionable.)

International comparisons are not the only way of understanding this skills equilibrium. Since the investment decision is a function of labour market conditions, it is necessary to look again at the nature of labour markets, this time their geographical implications.

Labour market geography

British labour markets are relatively geographically immobile compared with some other economies, particularly the USA. Although the Industrial Revolution depended on labour market mobility, as people flocked from the land to the cities (spurred by their attractions as much as anything else – rural poverty and ill-health made industrialisation very attractive), present housing conditions as much as anything else conspire against such movement across the country. The lack of adequate rented accommodation, the British obsession with house ownership (and its high sale and purchase costs and the regional disparities between house prices) all discourage easy geographical mobility.

This has produced a series of relatively self-contained local labour markets (in government statistics these are measured as 'travel to work areas' or TTWA) between which it is possible to have substantial variations in average pay, sectorial and occupational employment patterns and levels of economic activity and unemployment. Some of these local labour markets can string together to create larger markets such as the 'M4 corridor' (Newport to Heathrow) and the 'Cambridge triangle' (bounded by the M11, A45 and A12), but in general there will be little short-term interchange between local labour markets, other than on the boundaries.

The Training and Enterprise Councils were intended, as far as possible, to cover such labour markets. In rural areas this is less easy to achieve as the markets are smaller, less definable and often supply peripheral urban markets. Nevertheless, the definition of TECs by labour markets rather than local government areas was more an attempt to relate education and training planning and funding to the labour market than to be a deliberate insult to local authorities.

The Finegold and Soskice model suggests different behaviour in these discrete markets, that the skills equilibrium in Swindon (at the heart of the M4 corridor) might differ significantly from, say, Liverpool. Although the public infrastructure of education and training provision might be similar (schools, colleges, etc.) the economic infrastructure (which is intermediated with the education and training market by the labour market) is different, creating variations in the skills equilibrium. The significant question generated by this is how the equilibrium might be shifted; but before addressing this it is perhaps worth reflecting on one further perspective on local labour markets.

In the Europe of the '90s and with the Maastricht treaty still unratified but the Single European Market imminent, how valid is the nation-state in understanding labour markets? It has already been mentioned that Catalonia appears to have overtaken the UK economically, as has Lombardy (northern Italy), but the levels of poverty and economic welfare in Sicily or other parts of Spain are unrivalled in the UK. West Germany might have economic superiority, but not all parts of United Germany enjoy the same economic success. Subsidiarity, the EC principle of delegation to the lowest level of government where effective decision-making is possible, is a naturally-occurring principle in labour markets. There is likely to be a greater mobility of highly skilled labour between Swindon and Stuttgart, than between Swindon and Sunderland. Labour markets are becoming comparable more in terms of their skills equilibrium than their nationality. Language and culture are the only remaining barriers, and are more easily overcome than the economic barriers outlined above. After all, a child of three

can be bilingual so it should be a piece of cake for a graduate micro-biologist or electronic engineer!

Shifting the equilibrium

If the level of economic performance is to be significantly enhanced it cannot happen through unilateral means. From the analysis above it is possible to identify six policy goals which might usefully be considered in relation to education and training strategies:

1) linking education, educational institutions and employers, both structurally and through employment markets, as a way of establishing a greater role for education and training in encouraging economic growth;

2) changing attitudes towards education and training, and a wider recognition its economic significance;

3) overcoming labour market shortages by using economic downturns as an opportunity to build up a pool of skilled labour;

4) confirming the relative productivity gains available to employers as a consequence of their investment in education and training;

5) improving the quality of management in the UK, though a raising of their general level of educational attainment and through specific management development;

6) operating at local labour market level to break in and shift the skills equilibrium, rather than assuming that a national strategy should or could operate.

Achievement of the first of these goals, structural changes (altering the relationships between employers and education and training providers), and strategic changes (altering the environment in which these relationships occur), is more or less complete. The incorporation of colleges, the blurring of the binary divide in HE, the role of employers on governing bodies, the curriculum developments (GCSE, Standard Attainment Tests and the National Curriculum, NVQs and GNVQs, etc.) which are in train, the establishment of TECs and LECs, the pressure on LEAs to diminish (if not eliminate) their role, the emphasis on education/business partnerships and compacts, the growth of science and business parks linked to HE institutions, all fit into an overall strategy based on a belief in the market coupled with a strong dirigiste urge to push the market towards certain conclusions. It is not necessary to support these initiatives to accept them as fact. They arise from the Government's declared faith in the market coupled with some strongly held beliefs in the essential characteristics of education and training provision. Those who would advocate alternative policies (merging academic and vocational qualifications, placing less emphasis on final exams in GCSEs and A/AS levels or the placing of a requirement on employers to training by levy or statute) must recognise than they are not engaged in a rational/logical argument but in a challenge to powerfully held beliefs. Producing evidence to refute political claims is not sufficient, protagonists of alternative views must work within the structures and strategies to achieve their goals if they are to be effective.

The second policy goal, attitudinal changes, is harder to achieve but, significantly, education and training is now high on the political and economic agenda; in the election this year, education and training was central to all the major parties' economic as well as social policies. This has been enshrined in the CBI's **World class targets: a joint initiative to achieve Britain's skills revolution** (CBI 1991), endorsed by the Government, TECs and by a range of other organisations, including ACFHE (Association of Colleges for Further and Higher Education, ACM (the Association of College Managers) and the CDP (the Committee of Directors of Polytechnics). These targets are:

Foundation learning

1) Immediate moves to ensure that by 1997 at least 80 per cent of all young people attain National Vocational Qualification/Scottish Vocational Qualification (NVQ/SVQ) Level II or its academic equivalent in their foundation education and training;

2) all young people who can benefit should be given an entitlement to structured training, work experience or education leading to NVQ/SVQ Level III or its academic equivalent;

3) by the year 2000, at least half of the age group should attain NVQ/SVQ Level III or its academic equivalent as a basis for further

progression;

4) all education and training provision should be structured and designed to develop self-reliance, flexibility and broad competence as well as specific skills.

Lifetime learning

1) By 1996, all employees should take part in training or development activities as the norm;

2) by 1996, at least half of the employed workforce should be aiming for qualifications or units towards them within the NVQ/SVQ framework, preferably in the context of individual action plans and with support from employers;

3) by the year 2000, 50 per cent of the employed workforce should be qualified to NVQ/SVQ Level III or its equivalent as a minimum;

4) by 1996, at least half of the medium sized and larger organisations should qualify as 'Investors in People' assessed by the relevant Training and Enterprise Council or Local Enterprise Company.

CBI (1991)

These targets represent a significant attitudinal change, insofar as they indicate a commitment on the part of significant players in the education and training market to achieve measurable outcomes.

Ball (1992) has urged even higher targets; building on the 'World Class Targets' he suggests that targets should be set specifically for full-time participation post-16, and for lifetime learning outcomes (the latter being less easily measurable):

a) by the year 2002, everyone should continue formal learning (full-time or part-time) at least to the age of 18, and everyone should achieve the equivalent of NVQ Level III, currently BTEC National or GCE A level (or the Scottish equivalent) during the course of their lives; and

b) by the year 2012, everyone should continue formal learning (full-time or part-time) at least to the age of 21, and everyone should achieve the equivalent of NVQ Level IV, currently BTEC Higher National or the Diploma in Higher Education, (or the Scottish equivalent) during the course of their lives.

For the purpose of these targets, the word, 'everyone' is to be understood to mean 'all those not disabled from learning'. It is assumed that those who are so disabled will be encouraged and helped to achieve their own appropriate targets for learning.

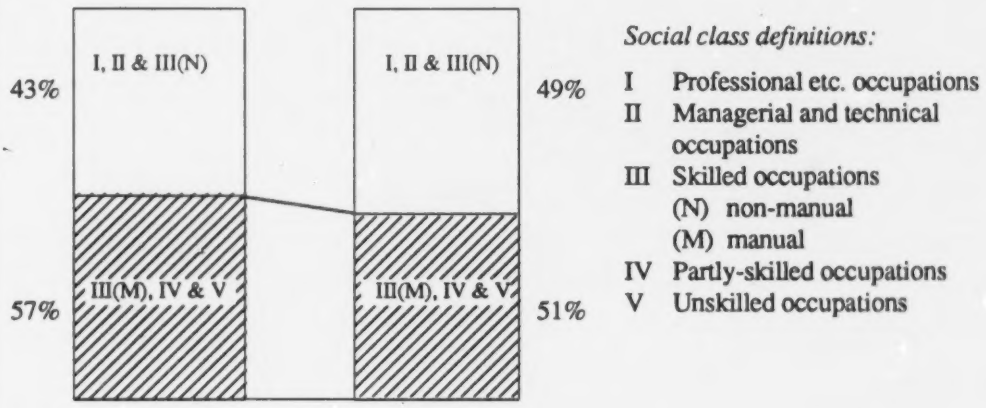
These targets can be compared to France, where President Mitterand's first socialist government (in 1981-86) set a target of 80 per cent of all 18 year olds to have achieved the standard of the Baccalaureate – approximately NVQ Level III – by the year 2000. See Dundas-Grant, 1989.

Changes in the social structure are contributing to a change in participation attitudes. Between 1971 and 1981 the proportion of the economically active population in social classes I and II (management and professional, and intermediate) increased from 21 per cent to 25 per cent, those in social class II (N) (skilled, non-manual) from 21 per cent to 22 per cent, whilst social class III (M) (skilled, manual), IV (semi-skilled) and V (unskilled) fell from 27 per cent, 20 per cent and eight per cent to 24 per cent, 18 per cent and six per cent, respectively. Ignoring those inadequately described, and grouping together the 'white collar' (I, II, III [N]) and 'blue collar' (III [M], IV, V) social classes, produced the pattern shown in **Figure 4**.

This slow but inevitable trend (the 'embourgeoisement' of the working class population) with a majority of skilled or semi-skilled non-manual workers, reflects a changing employment scene and encourages changes in the attitudes and (more importantly) the behaviour of young people in relation to post-16 participation. Research by Redpath and Harvey (1987), amongst many others, has demonstrated the important correlation between social class and post-18 (and therefore post-16) participation. Just over half those in HE will have at least one parent with a graduate equivalent qualification and 60 per cent will come from families in social class I or II (only a quarter of the economically active population). Three-quarters of all HE students will come from families in the 50 per cent of the population with white collar occupations.

Allowing for the fact that such families are now larger (i.e. more children are born to women in social classes I and II than to women in other social

Figure 4: Social class distribution, 1971 and 1981



Source: Population census, 1971 and 1981 (OPCS) and Standard Occupational Classification, Volume 3 1992 (OPCS).

classes) the shift in population social class structure, all other things being equal, will inevitably lead to higher post-16 (and post-18) participation rates. If, as the evidence in Part 2 of this paper suggests, there is a significant change in attitudes and behaviour amongst all social classes, this will enhance the tendency towards higher participation and attainment, generally.

Despite these social class changes there is still a strong residual group amongst whom attitudes to education and training participation will be slow to change. This is reflected in their attitudes to, and expectations of work; Ashton and Maguire (1986) identified significantly different reasons for 'taking first job' amongst 18-24 year olds employed at different skills levels. Only eight percent of respondents in professional, managerial or technical occupations indicated that 'money' was a significant factor, citing 'interest' (55 per cent) and 'prospects' (42 per cent) as dominant factors. For those in unskilled manual occupations the comparable proportions were: 'money' (23 per cent), 'interest' (20 per cent) and 'prospects' (1.5 per cent), with 'only one available' (75 per cent) predominant.

This substantial variation in attitudes to work amongst young people is confirmed by Bynner (1992):

> "The commitment to work is as strong as ever. Ironically, it is strongest of all among those who have the least chance of getting a job.
>
> Amongst those from manual and unskilled backgrounds, adulthood and work are synonymous - you cannot be an adult without a job."
> Bynner (1992)

The creation of what Galbraith has described as a 'permanent underclass', a minority of the population caught in low paid, unskilled work with little or no prospect for advancement may become the long-term education and training challenge, as the majority of young people are enabled to progress to high-wage, high skilled occupation through the attainment of the 'World Class Targets'. This residual group

will be those for whom employment is seen as defining them as adults, and any employment is likely to be preferred to education and training. Unfortunately, as Bynner suggests, they are most likely to fall into the category of 'no employment'.

The third policy goal concerns the relationship between economic fluctuations, unemployment and participation in education and training, particularly for 16 and 17 year olds. Will the skills equilibrium be shifted upwards by young people 'choosing' education and training as the least worst alternative open to them and thus help to build a pool of skilled labour for the economic upturn so long promised? During the 1980s youth unemployment and unemployment generally became commonplace features of the labour-market. It is assumed that, and there is plenty of anecdotal evidence to suggest that, young people are choosing full-time participation because of the lack of jobs, and because of the difficulty TECs are having in fulfilling the Government's commitment to an offer of a YT place.

This is further compounded by the withdrawal of benefits entitlement (other than in exceptional circumstances) which has encouraged the assumption that young people are being forced into 16 plus participation because of the absence of an alternative, and at the same time it has created an absence of statistical data to measure the reality of youth unemployment.

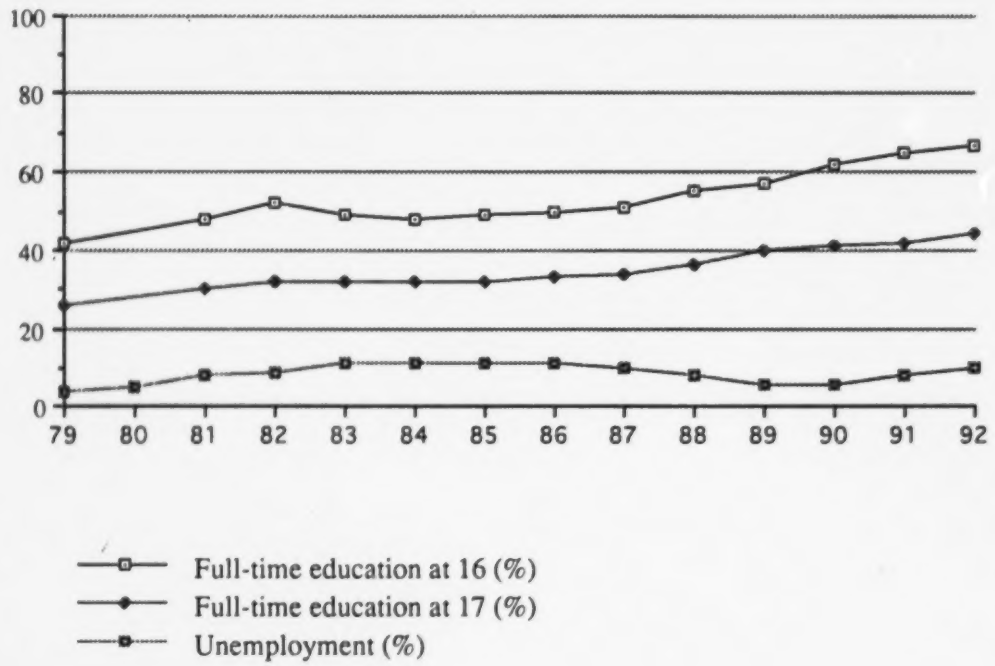
If higher unemployment and the withdrawal of benefit has encouraged young people to choose to stay on in post-compulsory education, then it should be expected that there would be a strong and positive correlation between participation rates and unemployment rates (assuming the latter is indicative of the employment prospects of young people). **Figure 5** illustrates this data; what is apparent is a parallel growth in all three curves between 1979 and 1982 but then an inverse relationship appears. In fact the Spearman coefficient of correlation (r) between unemployment rates, and 16 year olds (-0.53) and 17 year olds (-0.57) participation suggests not only a fairly weak relationship (r^2, 28 per cent and 33 per cent respectively, indicates the proportion of the pattern of participation explained by the determinant, unemployment), but a negative relationship, where rising unemployment is paralleled by lower participation.

There are three possible explanations for this. The first is that high or rising unemployment encourages greater job-seeking and/or low or falling unemployment encourages deferred job-seeking (and therefore education and training participation) because young people feel more confident of employment. The second explanation is that unemployment does not affect aggregate participation and that the correlation does not indicate any causal relationship.

The third (and most likely) explanation is that the effect of unemployment (or potential unemployment) does encourage higher participation but that this effect is limited to particular groups of young people, particularly those less well qualified, and is occurring at a time of great societal and attitudinal changes as mentioned above.

Whatever the true relationship, at a time when the UK is suffering its worst economic recession since World War II, participation rates amongst 16 and 17 year olds are growing. As the next part of this paper shows, the level of participation now looks like outstripping the most optimistic projections of a few years ago. It is worth examining this in more detail, before considering (in Part 3) the remaining three policy goals and suggesting how colleagues might take an active role through their marketing strategies to deal with them.

Figure 5: Unemployment and participation



PART 2: POST-COMPULSORY EDUCATION: IDENTIFYING THE TRENDS

> "The low participation of 16-18 year olds in education and training is widely seen as evidence of the UK's educational malaise."
> Raffe (1992)

> "The English education system is selective and specialised. Its selectiveness leads to relatively few young people staying on at school or going to college beyond the age of 16."
> Smithers and Robinson (1989)

Dismal reading. Yet in 1989/90 (the last year for which UK statistics are available) schools and colleges had 613,000 enrolments of young people aged 16 at the beginning of that academic year, out of a potential maximum of 769,000. This is just a shade under 80 per cent of the age group!

Of course, only 57 per cent were on full-time courses but a further 15.5 per cent were enroled on a part-time day basis, and just under seven per cent on evening courses. Allowing for the possibility of double counting amongst the latter group (full- or part-time students also enroled on evening courses) official statistics for three years ago showed at least three-quarters of 16 year olds were engaged in some form of education and training within the public sector. On top of these figures must be added those engaged on private sector YT and other training courses.

However, the picture looks even better when projected forward to this autumn and beyond. **Figures 6** and **7** show the numbers and percentages of 16 year olds participating in public sector education from 1973/4 through to projections for 1995/6.

These figures are derived as follows:

- data for 1973/4 to 1989/90, from various editions of **Education statistics for the UK**;

Figure 6: Post-compulsory participation levels in the UK among 16 year olds ('000)

Participation	Year > 1973/4	1976/77	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Total number	824	877	931	n/a	962	940	927	900	892	866	877	818	769	728	691	669	651	681	728
FT school	176	208	266	n/a	306	312	297	286	286	282	293	297	289	292	291	298	303	306	308
FT FE & HE	54	80	125	n/a	157	176	158	149	150	148	156	149	153	157	156	160	163	165	166
Total FT education	230	288	391	n/a	463	488	455	435	436	430	449	446	442	449	447	458	466	471	474
PT day FE & HE	103	66	115	n/a	86	83	128	137	136	132	128	132	119	115	111	109	107	113	121
Total FT & PT day	333	354	506	n/a	549	571	583	572	572	562	577	578	561	564	558	567	573	584	595
PT evening only	108	123	114	n/a	103	94	87	92	79	80	77	68	52	46	40	36	32	30	29
Total PT	211	189	229	n/a	189	177	215	229	215	212	205	200	171	161	151	145	138	142	150
Total all modes	441	477	620	n/a	652	665	670	664	651	642	654	646	613	610	598	603	605	614	624

Figure 7: Post-compulsory participation rates in the UK among 16 year olds (%)

Participation	Year > 1973/74	1976/77	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Total number	824	877	931	n/a	962	940	927	900	892	866	877	818	769	728	691	669	651	681	728
FT school	21.35	23.71	28.57	n/a	31.80	33.19	32.03	31.77	32.06	32.56	33.40	36.30	37.58	40.04	42.55	43.62	44.38	44.83	45.06
FT FE & HE	6.55	9.12	13.42	n/a	16.32	18.72	17.04	16.55	16.81	17.09	17.78	18.21	19.89	21.56	22.91	23.49	23.89	24.14	24.26
Total FT education	27.91	32.83	41.99	n/a	48.12	51.91	49.08	48.33	48.87	49.65	51.19	54.52	57.47	61.61	65.46	67.11	68.27	68.97	69.32
PT day FE & HE	12.49	7.52	12.35	n/a	8.93	8.82	13.80	15.22	15.24	15.24	14.59	16.13	15.47	15.82	16.09	16.25	16.39	16.52	16.66
Total FT & PT day	40.41	40.36	54.35	n/a	57.06	60.74	62.89	63.55	64.12	64.89	65.79	70.66	72.95	77.43	80.83	84.73	88.04	85.74	81.68
PT evening only	13.10	14.02	12.24	n/a	10.70	10.00	9.38	10.22	8.85	9.23	8.77	8.31	6.76	6.28	5.81	5.33	4.86	4.40	3.95
Total PT	25.60	21.55	24.59	n/a	19.64	18.82	23.19	25.44	24.10	24.48	23.37	24.44	22.23	22.11	21.90	21.59	21.25	20.93	20.62
Total all modes	53.51	54.38	66.59	n/a	67.77	70.74	72.27	73.77	72.98	74.13	74.57	78.97	79.71	83.72	86.64	90.07	92.91	90.15	85.64

- data for 1990/1 and 1991/2 were based on multiples of data for England alone (DES, 1992 and Slade, 1992);
- data for 1992/3 to 1995/6 are based on the calculation of a trend line (exponentially weighted moving average).

(The calculations for 1990/1 and 1991/2 are based on a fairly consistent relationship between English and UK participation rates and the latter is a conservative estimate for annual growth and probably represents the minimum rather than maximum, or even optimum numbers likely to participate.)

There are a number of very revealing trends apparent in the data, relating to the different modes of attendance.

Schools

Schools participation (which includes sixth form colleges in both historic and projected data) is increasing at a substantially faster rate in terms of absolute numbers. Proportionally it is growing less fast over the 10 years 1985-1995 (10 per cent compared to 12.5 per cent for FE) but at the same proportionate rate over the five years 1990-1995 (7.5 per cent for both).

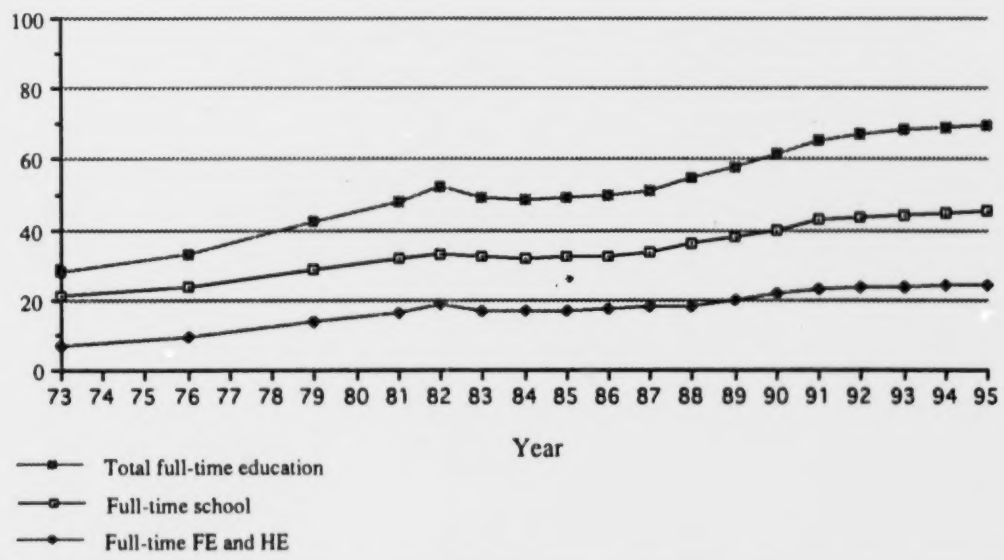
Further education (full-time)

The pattern in FE matches that of schools very closely, although working from a lower base. Numbers participating in full-time further education in colleges are just over half the numbers in schools. Growth rates are similar, but there is the possibility that the school sector may be accelerating slightly faster than the FE sector

Combined full-time (schools and FE)

The curve in **Figure 8** is probably the most significant piece of information. The ogive shape (from 1985 to 1995) is a classic example of a market penetration curve. After the peak in 1982, the slow growth from 1982 to 1986 in market penetration suddenly accelerates. Various commentators have suggested possible explanations for this but one which is generally ignored yet which seems most clearly to match the data is the substantial improvement in the quality of the marketing effort by colleges which occurred at about that time. New marketing management posts appeared across the system, various projects were undertaken (especially the Responsive College Project, 1985-1987), and the standard of promotional material soared.

Figure 8: Full-time participation at 16 (percent)



This doesn't directly explain the reason for school participation to rise other than the possibility that schools reacted to this with their own marketing strategies, and that the FE marketing effort may well have been a stimulant to participate rather than just have a specific recruitment outcome.

Of course there are other explanations, particularly the social class composition changes mentioned in Part 1 and the effect of GCSE in increasing the number of 16 year olds experiencing educational success. The former are too gradual to have such a sharp impact and the effect of GCSE would surely have produced a more marked 'step' effect rather than the annual increments apparent?

The converse of this argument is quite simple: if it is not the effect of improved marketing then colleges should cut their losses, sack their marketing staff and go back to simple, cheap, promotion!

Furthermore, the pattern of growth, the slow incline of the first 'purchase cycles' in the mid-'80s, the acceleration from 1987 to 1991, followed by a gradual tailing of to the mid '90s can be seen in any marketing text-book as the introduction, growth and maturity phase of the product life cycle (see **Figure 9**). This pattern is just as possible with a re-launch (which was what post-compulsory education was engaged in the '80s) as it is with a new product launch.

Figure 9: The product life-cycle

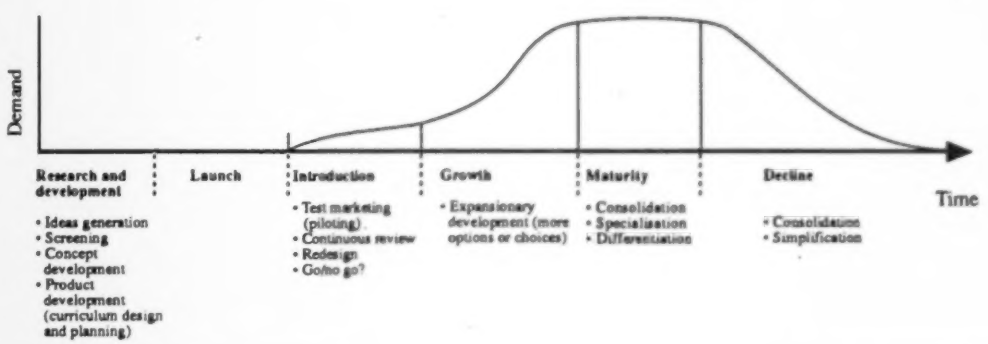
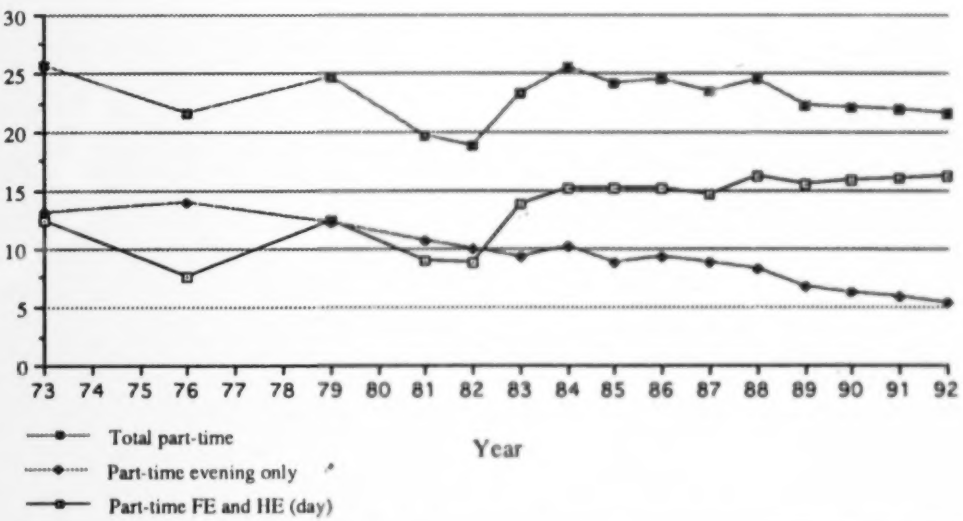


Figure 10: Part-time participation at 16 (per cent)



Part-time (day) FE

The pattern here is far more problematic to decipher; the inclusion of YT students on public sector courses but not private sector YT makes it difficult to judge precisely what the level of part-time participation in education and training really is.

The low growth between 1990 and 1995 (illustrated in **Figure 10**) is less certain than the full-time rate, as the pattern of participation shows more fluctuation during the '80s. it is also probable that the projected increase in full-time participation will 'squeeze' the numbers on part-time (including YT) provision.

Part-time (evening) FE

It is probable that the sharp decline projected here is a direct consequence of the increase in full-time participation; more young people will stay on to retake examinations or to join one or two year vocational courses rather than join evening classes to retake exams.

The significance of this for colleges is that it reduces the pressure to match evening GCSE provision to schools for the benefit of 'retakes' and allows a freer selection of opportunities to suit the needs of adult learners better.

Participation at age 17

With full-time participation amongst 16 year olds climbing to over 70 per cent by 1995, and combined full- and part-time day participation likely to approach 85 or even 90 per cent, it is becoming more and more important to consider the level of participation at 17.

In 1990/1, an estimated 41 per cent of all 17 year olds were engaged in full-time education in schools or college, two-thirds the proportion staying on at 16 (see **Figures 11** and **12**). However, the relative ratios between the two sectors is substantially different, with FE having more than two-thirds the number that stay on at school, and it is possible that this gap is narrowing.

A further 15 per cent are estimated to have stayed on in part-time (day) education in FE in that year but only a little under five per cent on evening courses. What is more important, however, is the gross staying on rate, as shown in **Figure 13** and illustrated in **Figure 14**. (The gross staying on rate is the number of 17 year olds in a sector and/or mode of study as a percentage of the previous years 16 year olds in that sector and/or mode. It does not imply that they are the same people.)

The overall gross staying on rate has fallen slightly between the successive academic years 1981/2 to 1982/3 (77.76 per cent) and the years 1989/90 and 1990/1 (estimated at 76.35 per cent); what has changed is the pattern of staying on, with full-time education especially FHE showing an increase, compensated for by decreases in part-time and evening modes.

School

Full-time participation in schools shows a similar pattern of increase at 17, as was apparent at 16 (see **Figure 15**). Although starting from a lower base it has shown a gradual increase since 1985: because data for 1990 and 1991 are not available, the figures beyond 1989 are projections and are probably conservative ones, as they show a flattening of the rate of the participation growth not apparent in the figures for 16 year old participation. It is probable that growth here has been greater and that by the autumn of 1992 something nearer 30 per cent of all 17 year olds will be participating in full-time education in the school sector, rather than the 26 per cent figure projected in **Figure 15**.

Further and higher education (full-time)

A very small proportion of 17 year olds in this category are in higher education, the majority being in FE colleges, and a pattern similar to that for schools is apparent. A participation rate nearer 20 per cent might be a more realistic estimate for 1992/3 academic year, meaning that a near majority of 17 year olds are likely to be engaged in full-time education this autumn.

This conservative prediction of nearly 50 per cent participation by 1995/6, could turn out to be nearer 60 per cent if growth rates accelerate in line with the product life-cycle/market penetration curve. What is particularly significant is the growth in the gross staying on rate during the 1980s. If the innovative new set of relationships resulting from franchise arrangements between FE colleges and schools (and,

Figure 11: Post-compulsory participation levels in the UK among 17 year olds ('000)

Year >

Participation	1973/74	1976/77	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Total number	800	855	915	n/a	954	961	947	926	903	892	868	878	821	769	728	691	669	651	681
FT school	163	181	160	n/a	181	188	182	174	169	174	170	185	194	187	183	179	179	180	193
FT FE & HE	53	86	77	n/a	107	123	118	118	119	123	124	132	133	129	126	123	122	122	131
Total FT education	216	267	237	n/a	288	311	300	292	288	297	294	317	327	316	309	302	302	302	324
PT day FE & HE	133	123	141	n/a	120	106	105	107	103	110	126	129	119	114	111	108	107	106	113
Total FT & PT day	349	390	378	n/a	408	417	405	399	391	407	420	446	446	430	420	410	409	408	437
PT evening only	99	104	96	n/a	95	90	109	98	64	63	56	54	45	38	32	27	23	19	18
Total PT	232	227	237	n/a	215	196	214	205	167	173	182	183	164	152	143	135	130	126	131
Total all modes	448	494	474	n/a	503	507	514	497	455	470	476	500	491	468	452	437	432	427	455

Figure 12: Post-compulsory participation levels in the UK among 17 year olds (%)

Year >

Participation	1973/74	1976/77	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Total number	800.00	855.00	915.00	n/a	954.00	961.00	947.00	926.00	903.00	892.00	868.00	878.00	821.00	769.00	728.32	690.68	669.37	650.78	680.63
FT school	20.38	21.17	17.49	n/a	18.97	19.56	19.22	18.79	18.72	19.51	19.59	21.07	23.63	24.37	25.14	25.95	26.78	27.60	28.38
FT FE & HE	6.63	10.06	8.42	n/a	11.22	12.80	12.46	12.74	13.18	13.79	14.29	15.03	16.20	16.74	17.26	17.79	18.29	18.77	19.22
Total FT education	27.00	31.23	25.90	n/a	30.19	32.36	31.68	31.53	31.89	33.30	33.87	36.10	39.83	41.11	42.41	43.74	45.07	46.37	47.60
PT day FE & HE	16.63	14.39	15.41	n/a	12.58	11.03	11.09	11.56	11.41	12.33	14.52	14.69	14.49	14.87	15.26	15.64	16.00	16.33	16.61
Total FT & PT day	43.63	45.61	41.31	n/a	42.77	43.39	42.77	43.09	43.30	45.63	48.39	50.80	54.32	55.98	57.67	59.38	61.07	62.70	64.21
PT evening only	12.38	12.16	10.49	n/a	9.96	9.37	11.51	10.58	7.09	7.06	6.45	6.15	5.48	4.94	4.40	3.87	3.40	2.99	2.60
Total PT	29.00	26.55	25.90	n/a	22.54	20.40	22.60	22.14	18.49	19.39	20.97	20.84	19.98	19.81	19.67	19.51	19.40	19.32	19.21
Total all modes	56.00	57.78	51.80	n/a	52.73	52.76	54.28	53.67	50.39	52.69	54.84	56.95	59.81	60.92	62.07	63.25	64.47	65.69	66.81

Figure 13: Staying on rates, 16 to 17, by mode and by year (1981/2 to 1990/1)

Age	Year	Total number	FT school	FT FE & HE	Total FT education	PT day FE & HE	Total FT & PT	PT eve. FE & HE	Total PT (day & eve)	Total all modes
16	1981/82	962	306.00	157.00	463.00	86.00	549.00	103.00	189.00	652.00
17	1982/83	961	188.00	123.00	311.00	106.00	417.00	90.00	196.00	507.00
	% retention		61.44	78.34	67.17	123.26	75.96	87.38	103.70	77.76
16	1982/83	940	312.00	176.00	488.00	83.00	571.00	94.00	177.00	665.00
17	1983/84	947	182.00	118.00	300.00	105.00	405.00	109.00	214.00	514.00
	% retention		58.33	67.05	61.48	126.51	70.93	115.96	120.90	77.29
16	1983/84	927	297.00	158.00	455.00	128.00	583.00	87.00	215.00	670.00
17	1984/85	926	174.00	118.00	292.00	107.00	399.00	98.00	205.00	497.00
	% retention		58.59	74.68	64.18	83.59	68.44	112.64	95.35	74.18
16	1984/85	900	286.00	149.00	435.00	137.00	572.00	92.00	229.00	664.00
17	1985/86	903	169.00	119.00	288.00	103.00	391.00	64.00	167.00	455.00
	% retention		59.09	79.87	66.21	75.18	68.36	69.57	72.93	68.52
16	1985/86	892	286.00	150.00	436.00	136.00	572.00	79.00	215.00	651.00
17	1986/87	892	174.00	123.00	297.00	110.00	407.00	63.00	173.00	470.00
	% retention		60.84	82.00	68.12	80.88	71.15	79.75	80.47	72.20
16	1986/87	866	282.00	148.00	430.00	132.00	562.00	80.00	212.00	642.00
17	1987/88	868	170.00	124.00	294.00	126.00	420.00	56.00	182.00	476.00
	% retention		60.28	83.78	68.37	95.45	74.73	70.00	85.85	74.14
16	1987/88	877	293.00	156.00	449.00	128.00	577.00	77.00	205.00	654.00
17	1988/89	878	185.00	132.00	317.00	129.00	446.00	54.00	183.00	500.00
	% retention		63.14	84.62	70.60	100.78	77.30	70.13	89.27	76.45
16	1988/89	818	297.00	149.00	446.00	132.00	578.00	68.00	200.00	646.00
17	1989/90	821	194.00	133.00	327.00	119.00	446.00	45.00	164.00	491.00
	% retention		65.32	89.26	73.32	90.15	77.16	66.18	82.00	76.01
16	1989/90	769	289.00	153.00	442.00	119.00	561.00	52.00	171.00	613.00
17(est)	1990/91	769	187.00	129.00	316.00	114.00	430.00	38.00	152.00	468.00
	% retention		64.71	84.31	71.49	95.80	76.65	73.08	88.89	76.35

Figure 14: Staying on rates, 16 to 17, by mode and by year

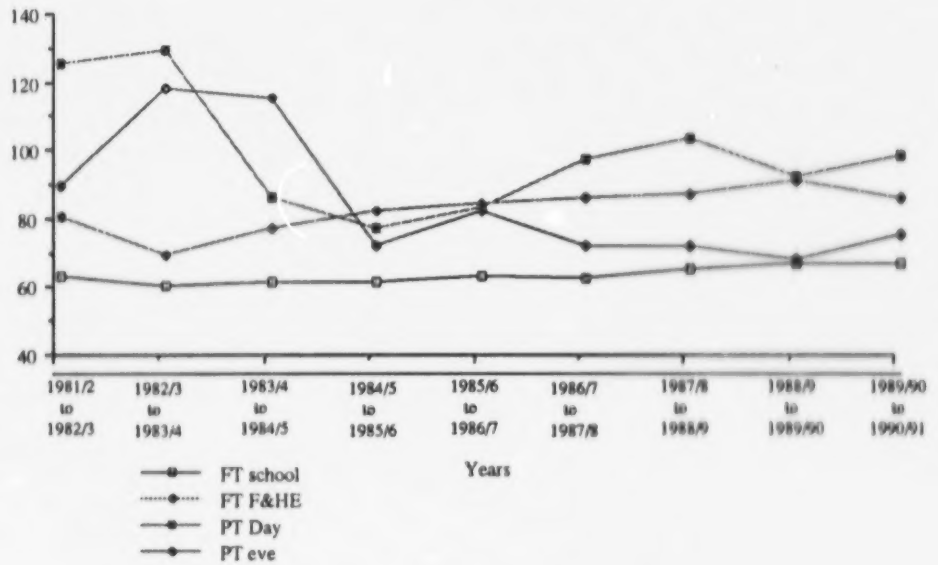
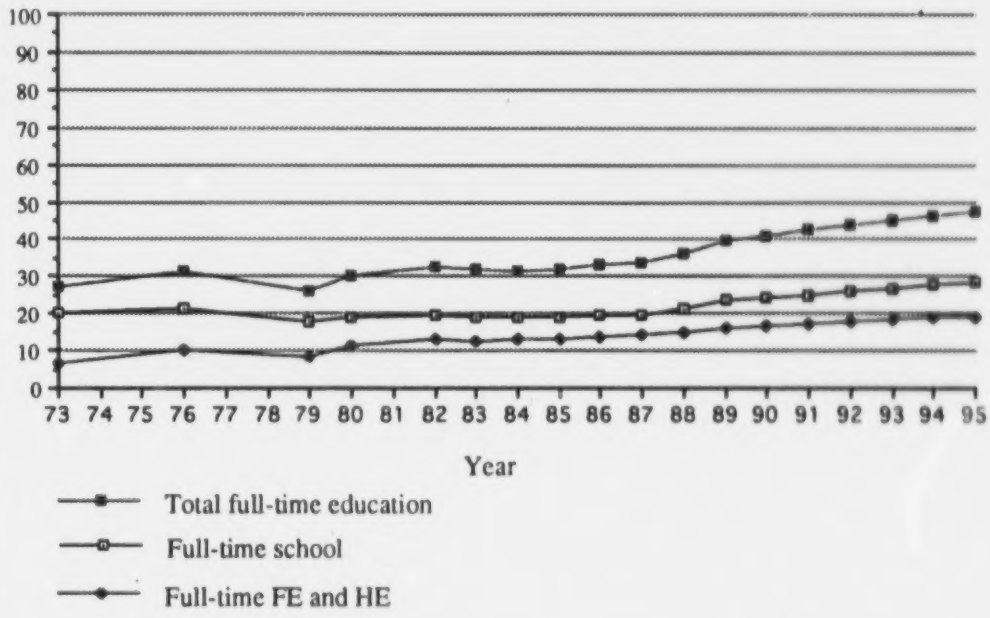


Figure 15: Full-time participation at 17 (%)



quite probably, HE and FE colleges) continues, it is possible for the same increases to produce a 70 per cent gross staying on rate in schools and a 90 per cent staying on rate in FE colleges by the mid 1990s. Such a phenomenon would mean that total full-time enrolments of 16 and 17 year olds, in FE colleges, in 1994/5, could be as high as 317,000, compared to the officially recorded enrolment of 286,000 in 1989/90 – an increase of 10.8 per cent at the depth of the demographic trough. This compares with a total (all ages) predicted enrolment in NAFE in England in 1994 (high estimate), of 273,000 (DES, 1988) which equates to 330,000 for the UK. The figure of 317,000 is based on:

i) an increase in the gross staying on rate from 16 to 17 in full-time FE to 90 per cent;

ii) conservative predictions of the numbers of 16 year olds participating in the year 1994/5 (168,000) and the previous year (165,000); this latter figure, with a 90 per cent staying on rate (149,000), gives the projected 317,000;

iii) excluding all students over the age of 17 in full-time FE.

Of these three conditions, the third is the most pertinent; 16 and 17 year olds account for only two-thirds of full-time FE students. Even if the number of older full-time students (i.e. 18 plus) is limited by the increasing difficulty of obtaining discretionary grants, it must still mean that the forecasts of enrolments by the DES will be considerably under the actual number, even on their high estimate.

Assuming 18 plus enrolments reduce from 50 per cent to 40 per cent of those for 16-17 year olds, the forecast for 1994/5 (the bottom of the demographic trough) would still be 444,000 full-time FE students, compared to the DES high forecast (UK equivalent) of 330,000. The implications of this, for college funding and government spending are substantial.

Part-time (day and evening) FE

An overall downward trend in the numbers participating on a part-time basis reflects two contrasting trends (see **Figure 16**). Part-time day participation picked up sharply in 1985/6 but then flattened off. The upward trend shown in the graph probably over-emphasises the possible growth because of the sharpness of the jump brought about by two-year YT.

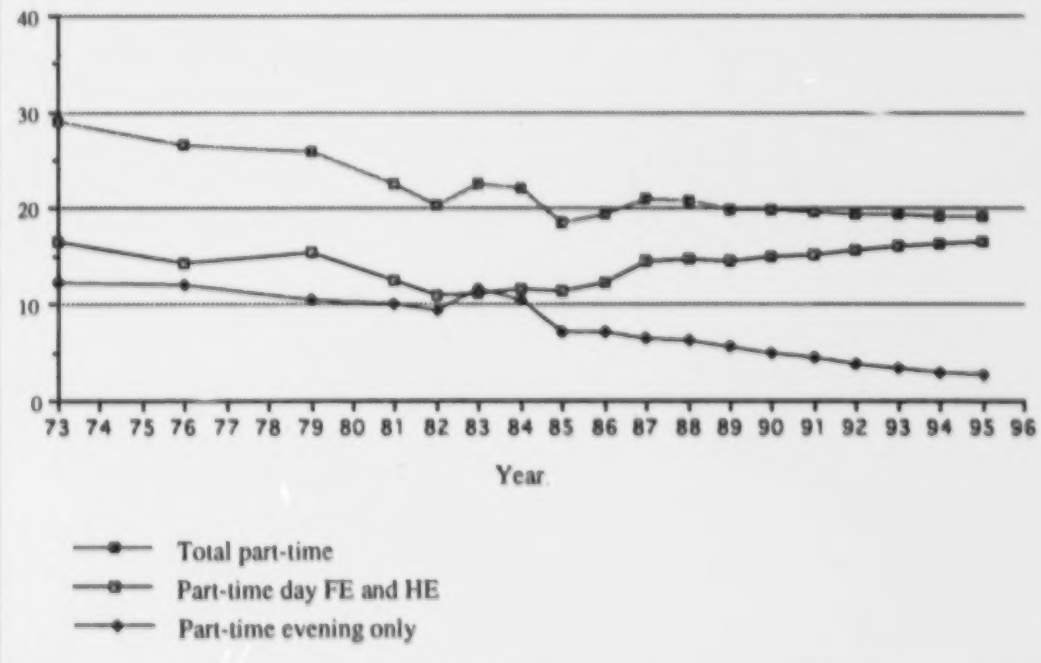
It is possible that the level will flatten off at around a maximum of 15 per cent, but the continuing decline in evening participation is undoubtedly a reflection of the growth in full-time and part-time day participation. If these continue with the trends outlined earlier, it is unlikely that this pattern will be reversed, and by the next century evening education will become the almost exclusive preserve of 18 plus students.

16 plus participation: the qualitative aspect

Whilst the debate about post-16 participation has been focused predominantly on quantitative issues, over the last few years increasing concern has been voiced about the qualitative dimension. It is not enough to encourage more young people to stay on; it is equally important that the level of attainment matches international standards.

Two distinct issues need to be addressed here, issues which are often confused in the debate. The first is the absolute standard of attainment being arrived at in post-16 qualifications, the other is the parity of esteem between vocational and non-vocational awards.

Figure 16: Part-time participation at 17 (%)



The harshest criticism of absolute standards is contained in Prais *et al* (1990) – a collection of articles originally published between 1981 and 1989 – and in Steedman (1990). By the use of standardised tests of mathematical ability, by comparing qualification syllabus content, vocational education systems and curriculum delivery mechanisms, and by matched case comparisons of resource utilisation and organisational performance appraisal, the NIESR studies have identified serious comparative weaknesses between the UK and Japan, Germany and France.

In particular there is strong criticism of the narrowness of the vocational curriculum (particularly of NVQs), and of the level of performance demanded by vocational qualifications. It would be too large a task to run through the details of these studies (which should receive a far wider audience than they have done), but there are certain methodological weaknesses which could be levelled against them.

In particular, there is a tendency to adopt a fairly traditional academic view of curriculum standards. The competence model (with its emphasis on performance rather than knowledge) is treated rather at face value (reflecting, unfortunately, the behaviour of many industry lead bodies) and the decision to provide opportunities for those with learning difficulties to obtain some form of vocational qualification within the NCVQ framework, through the Level I awards, is treated rather cavalierly.

Nevertheless, the four studies of productivity and training in four samples of matched plants in Germany and Britain "in metal working, wood furniture, clothing manufacture, and hotels contained in Prais *et al* (1990) provide some of the most convincing proof of the investment (rather than cost) nature of vocational education and training. They also tend to confirm Cassels' (1990) view, that the fundamental flaw lies in management performance.

The academic/vocational divide has received far more attention in the last few years; the Higginson report (Higginson, 1988), Finegold and Soskice (1988), Finegold *et al* (1990); Smithers and Robinson (1989) etc. all recommend changes to the structure of the post-16 qualifications system which could or should enable comparability or even merger of both academic and vocational qualifications.

This, of course, would enable us to overcome the economic challenge of the major competitors; the USA, Japan and Germany. What this doesn't account for is why all three countries, to some extent, possess separate vocational and academic qualifications which, in the case of Japan and Germany, offer less chance of crossover (at least from vocational to academic) than does the UK. It is easier for a National Diploma student to enter a degree course in HE than it would be for their equivalents in either country. Even in the USA, vocational awards (by which are usually meant craft awards) operate distinct from the mainstream High School Diploma/Associate and Bachelor degree route.

This is not a plea to preserve the divide, but to recognise that bridging it may not, in itself, produce the parity of esteem which many desire. The French experience shows that the harmonisation of awards within the Baccalaureate does not necessarily mean that the holder of a Bac. Technologique or a Bac. Professionel is the same as the holder of a Bac. without the suffix. The same may not be equal.

Colleges should not determine their strategy on the basis of 'what if'. The reality of government policy for the next four or more years is to operate within the structures now in place: A and AS levels, NVQs and GNVQs and the overarching Ordinary and Advanced Diplomas. Their goals are contained within the World Class Targets of the CBI (CBI 1991) which the Government has endorsed. The crucial question is, is it possible to achieve the qualitative targets, now that the numbers participating are rising so sharply?

The first target – that by 1997 at least 80 per cent of all young people attain NVQ/SVQ Level II or its academic equivalent – seems highly likely to be achieved, given that the projected participation rate in full-time and part-time (day) education and training will probably exceed 80 per cent by 1995/6. The vast majority of these students will be on courses leading at least to Level II awards.

The second target (entitlement to work towards Level III award) is largely in the hands of the funding bodies, but the third target – by the year 2000, at least half of the age group should attain NVQ/SVQ Level III or its academic equivalent – appears to be the most challenging (although well below Mitterand's 80 per cent target for French 16 and 17 year olds).

In reality this target is probably well within reach already. According to the 1990 Labour force survey in **Employment Gazette** (Employment Department, 1992), some 40 per cent of the entire workforce already achieves that target, and the proportion is increasing at just under one percentage point a year (see **Figure 17**).

For 16 and 17 year olds data are far less easily accessible. However, according to the Department for Education (DFE, 1992), in England in 1990/1, some 19 per cent of FE students aged 16 or 17 were on A/AS level or professional qualification courses (89,000 students). A further 125,000 were on BTEC courses; given the rough 30:70 split between First and National Awards in BTEC registrations, this would suggest around 88,000 BTEC National students.

Assuming that 90 per cent of 17 year olds and 60 per cent of all 16 year olds enroled in schools were on A/AS level courses (168,000 and 175,000 respectively; a total of 343,000 students) this would suggest some 520,000 16 and 17 year olds on Level III awards in that year, out of a total population of 1.5 million in the age group, or 35 per cent. This estimate ignores the 148,000 City and Guilds and RSA students in FE, at least some of whom would have been on Level III courses.

Therefore the gap to be closed between 1990 and the year 2000 is between something over 35 per cent and 50 per cent. Given the increase in the numbers staying on at 17, it seems probable that the target (if 'young people' includes 18 year olds, i.e. three academic years passed the compulsory staying on age) will be achieved or surpassed.

It is therefore possible to conclude that the quantitative gap between the UK and its major economic competitors is well on its way to closing and that the qualitative gap is now the real challenge. If effective progression routes from Level II to Level III awards (and hence to Level IV, higher education) can be arranged, this gap may also be closed.

Figure 17: The education attainment of the workforce: 1981-90 Great Britain, age 16-59/64 (%)

	1981	1984	1987	1990
Degree or equivalent	6.5	7.0	7.8	8.5
HE below degree	5.1	5.5	5.6	5.9
A level or equivalent	20.4	22.2	22.5	25.3
GCE O level or equivalent	13.5	15.8	17.3	18.5
CSE (<grade 1)	4.7	5.1	5.0	4.5
Other qualifications	4.0	3.8	5.6	7.0
No qualifications	45.8	40.8	36.1	30.3
NVQ Level III or equivalent	32.0	34.7	35.9	39.7
NVQ Level II or equivalent	45.5	50.5	53.2	58.2

Source: Labour force survey, **Employment Gazette**, March 1992

PART 3: THE CHALLENGE FOR COLLEGES

In Part 1 of this paper I suggested six policy goals which, together, would significantly enhance the UK's economic performance.

These were:

1) linking education, educational institutions and employers, both structurally and through employment markets, as a way of establishing a greater role for education and training in encouraging economic growth;

2) changing attitudes towards education and training, and a wider recognition of its economic significance;

3) overcoming labour market shortages by using economic downturns as an opportunity to build up a pool of skilled labour;

4) confirming the relative productivity gains available to employers as a consequence of their investment in education and training;

5) improving the quality of management in the UK, though a raising of managers' general level of educational attainment and through specific management development;

6) operating at local labour market level to break in and shift the skills equilibrium, rather than assuming that a national strategy should or could operate.

Of these six, I then suggested that the first (structural and environment changes) was the purpose of government action in reorganising the post-school education system, and that the second was occurring through concerted efforts at national level, supported by changes in the social structure (and acknowledging that this latter presents some residual problems). The third goal is being partly achieved as a result of the substantial increases in participation for which colleges should take a lot of credit, over the last few years. These increases make it possible not just to reach but to surpass the 'World Class Targets' certainly in terms of participation and probably in terms of attainment.

The other three policy goals represent a marketing challenge to colleges; to convince employers of the economic benefits of education and training to stimulate demand for management development, and to define their role in the local labour market as being responsible for raising the skills equilibrium and to measure their performance accordingly.

Education and training is too often seen as a cost rather than an investment; urging employers to undertake education and training as a moral obligation has no more logic than urging them to buy new machinery for the good of their souls! Colleges should focus their promotion to employers on the economic benefits of education of training, not just in general terms but by reference to specific examples. The work of Prais *et al* (1990) provides such evidence; further evidence should be gathered by colleges individually or by collective effort. The role of an organisation such as AFC (the Association For Colleges) could encompass sponsoring or co-ordinating research gathering and studies to support colleges' marketing efforts.

If college managers believe in the value of education and training to employers (as well as to individuals), such a strategy offers twin benefits. Individual employers (particularly smaller ones) can be convinced more readily of the need to invest in education and training if the financial return can be more readily identified, and the Government and its agencies (including FEFC, TEED, the TECs and LEAs) can be shown how valuable is the contribution made by colleges to productivity and growth.

Whilst such a strategy involves educating managers about the value of education and training, a wider management education challenge exists: to raise the standard of managerial performance in the UK. The National Foundation for Management Education and Development (more widely know as the Management Charter Initiative or MCI) represents the most coherent, and certainly the most substantial, strategy to raise standards and stimulate interest in management development in the UK. Those colleges not wholly convinced of its longer term success must recognise that it is the only initiative currently available and thus preferable to the alternatives. Involving themselves actively in MCI (which is being heavily promoted by most TECs) offers twin benefits again for colleges. It is the largest single potential market for colleges, larger

than any other occupational sector, and one in which the growth in demand probably outstrips any other, at all the MCI levels. Thus, financially, it offers benefits but in addition it offers the benefit of giving colleges access to a group of current and future decision-makers on whom participation of many employees might depend. Thus the value of the education and training provision offered by colleges to developing managers will make those managers more open to approaches by colleges in the future.

The final policy goal poses the biggest challenge of all to colleges; to redefine their role away from a narrow focus as education and training providers towards being the principal source of human resource development within their employment community. This means appraising their relationship with employers and the groups and networks which bind them together, to ensure that they are at the centre, rather than peripheral figures in this community.

The college should normally be first port of call for advice and information for small and medium-sized employers, particularly as regards technical matters (as it is in Japan), seeing such a service not just as a potential income earner, but as an opportunity to know its customer base, to identify and support business development as part of its wider economic role. Furthermore such links provide opportunities to develop the expertise of staff and ensure that they are performing in their core role to the standard which learners have a right to expect.

Of course, none of this is completely new. There are many colleges actively pursuing such a strategy despite the constraints imposed by declining real funding per student. What is needed, however, is for more colleges to recognise that within their local labour market they can be the key player in shifting the skills equilibrium. TECs and LECs, which have a similar role, are principally enablers. Colleges have the potential to be key players, acknowledging that no further lead will come from central government and that their new quasi-independence, as corporate bodies, should provide a springboard for redefining themselves and their role.

The starting point for this is the success the post-16 sector has had in promoting the rapid growth in participation and attainment, jointly with the schools sector. Colleges should be proclaiming their success loudly and widely. Further success will be achieved far more easily by co-operative activity locally between both sectors. The growth in participation is such that the pressure will be to accommodate rather than attract students. By establishing market share agreements, franchises and joint provision, and encouraging progression from one sector to another, schools and colleges can both benefit.

It has been commonplace in the business sector (although usually forbidden) for a relatively small group of suppliers competing in a limited market, to engage in cartels. The benefits for business lie in minimising price competition; for schools and colleges it will be the avoidance of duplication and over expensive recruitment campaigns.

Regrettably in some areas, the severing of the link between colleges and education authorities is occurring amidst rancour and bitterness on both sides. The potential for future collaboration is lessened rather than encouraged by this situation. I am too much of a realist to ignore the problems facing many colleges but incorporation needs to be viewed as a new chapter, an opportunity to redefine the colleges' market position and its relationship with its community.

With polytechnics gaining university status, the diversity of the post-school education system may well be reduced. Colleges in the new further education sector must use their new status to define themselves clearly and assert their primary purpose within their local community.

Once the administrative complexities of new financial personnel and estates management systems have been sorted out the real challenge of incorporation must be faced and colleges should enter their brave new world loudly proclaiming a recent history of market success and firmly staking a claim to a pivotal role in the economic regeneration of their local community. The opportunity is there, it is up to college managers and governing bodies to seize it.

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